

Fact Sheet on Programmatic Example

(Note: this is just an example of the type of evidenced based or promising practice that may implement all or part of a BSK strategy.)

Strategy to be Addressed:

Helping youth stay connected to their families, caregivers and communities - Create healthy and safe environments for youth and help assure children have access to nutritious food and high quality physical activity

Program Name:

Communities Putting Prevention to Work (CPPW)

Planet Health

Brief Program Description:

CPPW programming includes the following elements: 1) establishment of school nutrition standards for school meals & nutrition/culinary training for school cafeteria staff; 2) student-led healthy eating and active living campaigns; 3) farm to school initiatives; 4) schools participation in community health coalitions.

Planet Health is a curriculum on simple health education and goals, and includes a high quality PE component.

Prevention Results Achieved Elsewhere or in K.C. Pilot:

CPPW grants funded two-year pilots in five King County school districts (Seattle, Renton, Highline, Auburn, and Tukwila) obesity rates were reduced by 17% (from 9.5% to 7.9%).

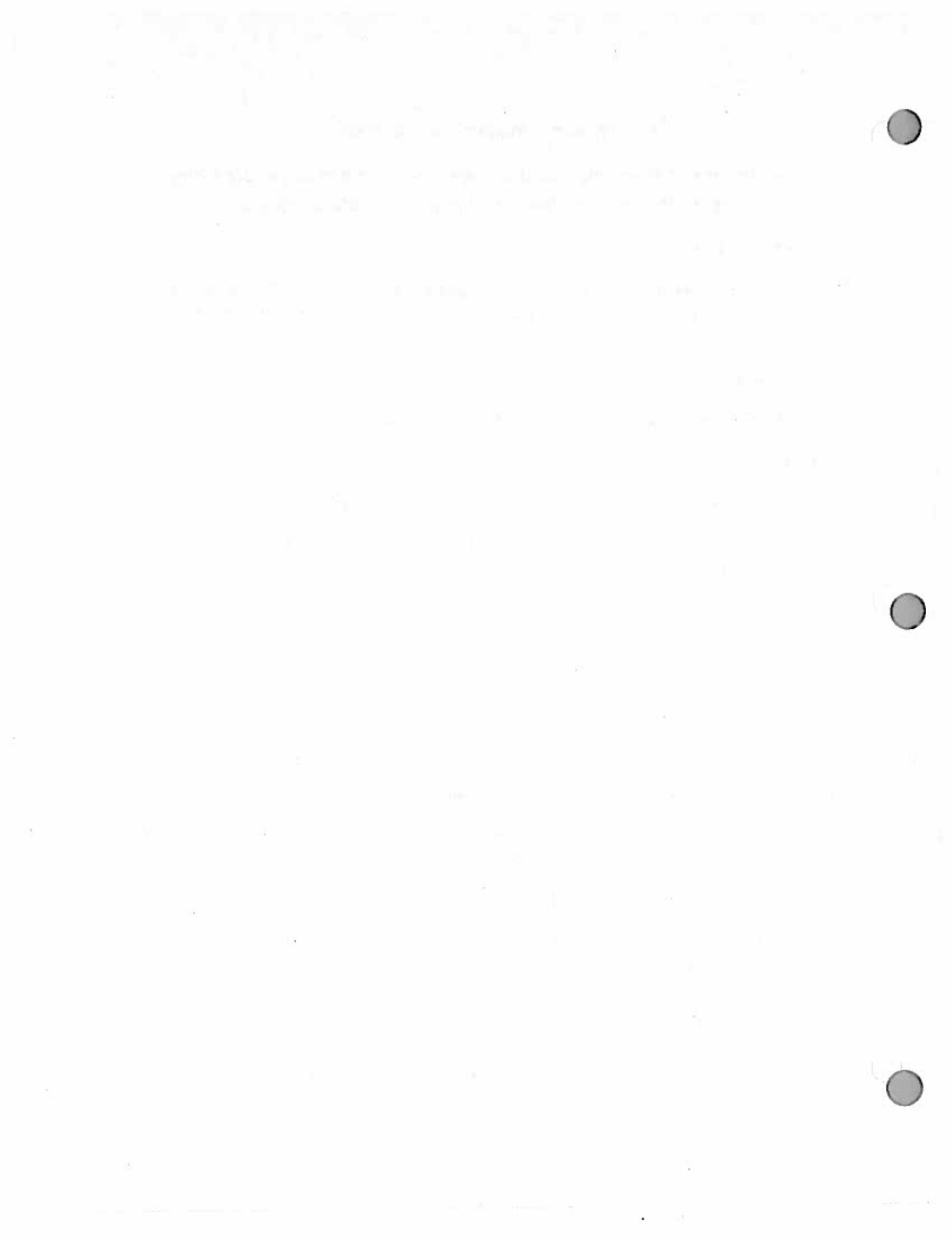
Planet Health studies found that the intervention significantly reduced obesity among girls and beneficially altered a number of behaviors among girls, but results were not significant for boys.

Target Population and number of people served:

CPPW – for the pilots a total of 143, 930 school aged children were served, which is approximately 50% of all King County school aged children and 85% of school aged children in the highest risk areas of the County.

Estimated Cost to Administer:

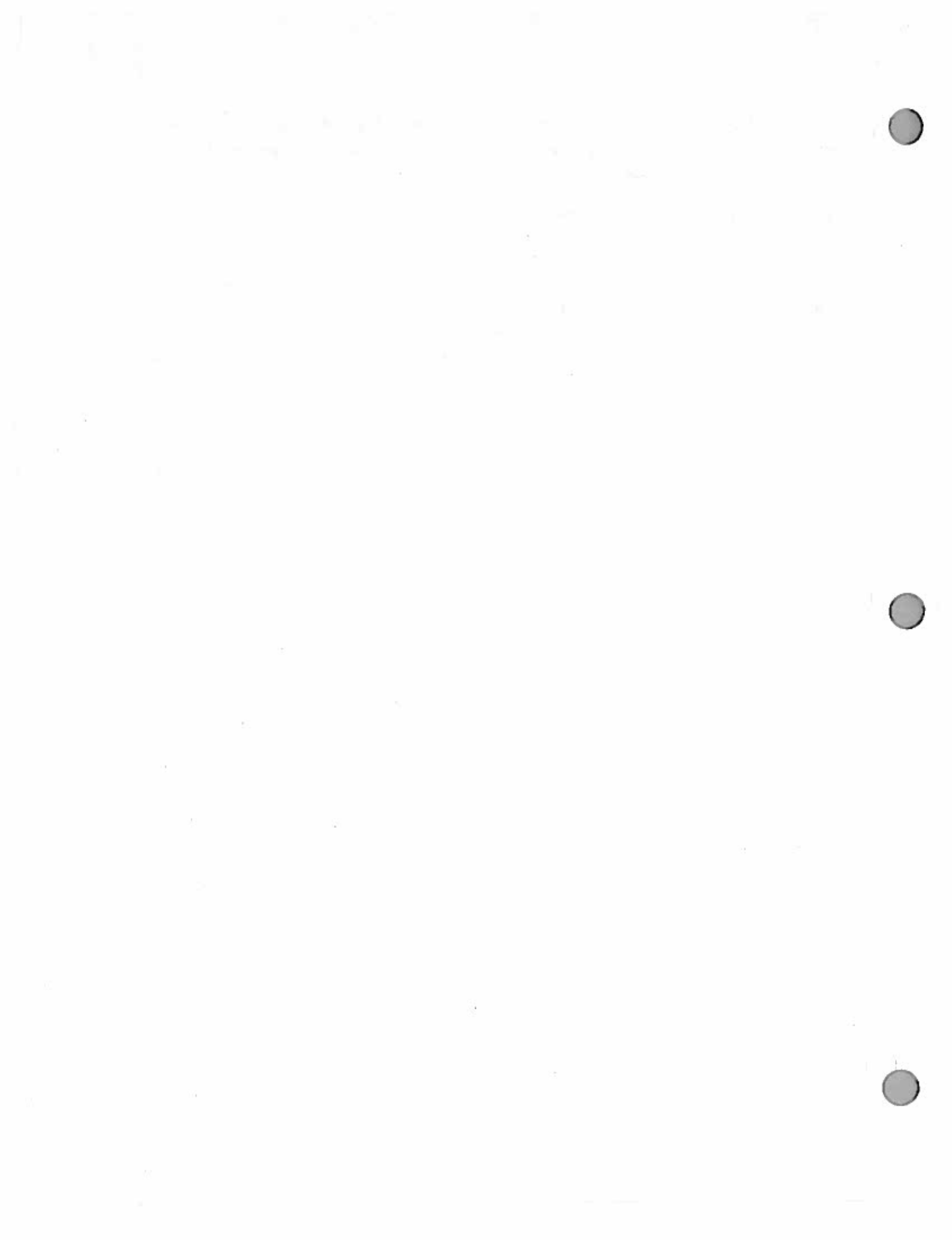
CPPW cost \$1,350,000 per year to reach approximately 143,930 students.



Planet Health costs approximately \$9.00 per student in the first year, and declines in cost for a number of years until new training is needed. Approximately \$495,000 to implement in all middle schools for the first year, with declining costs in intervening years.

Estimated Cost Savings to Community.

Obesity has impacts on both direct inpatient and outpatient healthcare costs, as well as indirect costs, such as lost work and less income. Studies regarding obesity-related healthcare costs cite ranges from 8% to 13% of all medical costs, impacting diabetes, high blood pressure, cardiovascular disease, gallbladder disease, colon cancer and postmenopausal breast cancer. In terms of medical costs, one study estimates a reduction of up to \$2,741 per capita annually. In addition to medical savings, there are also personal savings in reduced wages lost and greater earning capacity.



King County Communities Putting Prevention to Work (CPPW)



**Communities Putting
Prevention to Work**



King County CPPW Grantee Evaluation Report

Seattle Public Schools



Public Health
Seattle & King County 

Prepared by the Center for Community Health and Evaluation
October 2011

Project Title: Seattle Public Schools

Target area: City of Seattle

Grant amount: \$408,496

Public Health – Seattle & King County Project Officer: Donna Oberg

Seattle Public Schools Project Coordinator: Katie Busby

Summary

The CPPW grant in Seattle Schools was focused in three areas: physical activity, safe routes to school, and nutrition. The physical activity portion addressed the need for PE equipment and training in 21 schools in lower income areas within the district on the newly adopted and School Board approved physical education program called “Five for Life”. Safe routes to school is becoming more common for younger grade levels. Seattle Public Schools partnered with the King County Food and Fitness Initiative to pilot a middle and high school program. Nutrition was multifaceted, addressing the meals served, education in the cafeteria through a harvest of the month program, whole food cooking training for staff, community outreach, and breakfast promotions.

Background

Communities Putting Prevention to Work (CPPW) is a national initiative to prevent chronic disease and promote health through policy, systems and environment changes. King County is one of 55 sites throughout the United States awarded grant funding through the Centers for Disease Control & Prevention (CDC). The initiative is tackling obesity and tobacco use, the leading causes of preventable death in our region.

As part of the initiative, Public Health - Seattle & King County awarded 51 grants totaling \$8.9 million to fund school districts, community-based organizations, and local governments to improve nutrition and physical activity, and decrease tobacco use and exposure. This report describes the outcomes resulting from one of those community grants: to the Seattle Public Schools.

Grantee Description

Seattle Public Schools (SPS or District) is the largest K-12 school system in Washington State, serving 45,944 students in 88 schools. The diverse student population consists of 2% Alaskan Native, 22% Asian Pacific Islander, 21% Black, 12% Hispanic and 43% Caucasian. In the Seattle Public Schools 41% of students qualify for free and reduced meals. The District is focusing efforts in schools located in central and south Seattle to address the populations who are disproportionately affected by overweight/obesity, low levels of fruit and vegetable consumption and higher levels of inactivity.

Project Description

Overall Goals

Seattle Public Schools set 3 major goals for its Communities Putting Prevention to Work (CPPW) funding:

1. **PHYSICAL EDUCATION:** Implementing a high-quality physical education program.
2. **SAFE ROUTES TO SCHOOL (SRtS):** Partnering with the King County Food and Fitness Initiative to support safe routes to school efforts in 2 middle schools and 1 high school.
3. **NUTRITION:** Partnering with top Seattle chefs to create new recipes for the meal programs, training staff on scratch cooking, using more locally produced food items, adding salad bars to pre-pack schools, delving into the unknowns of breakfast participation at the elementary, middle and high school levels, and forming a countywide Nutrition Services Task Force.

Physical Education: Program Support

Originally, the district identified 17 schools to receive equipment and training to improve the implementation of Five for Life, a School Board approved physical education program.

Safe Routes to School: Partnership

The King County Food and Fitness Initiative (KCFFI) reached out to community groups in the Delridge neighborhood in West Seattle to mobilize their community in support of biking and walking. Through a student designed bike club, KCFFI offered education around bicycle safety, issues around infrastructure and active commuting, how transportation choices affect health outcomes, and how community organizations can impact city planning around healthy environments. KCFFI offered training for community organizations on how best to work with youth, youth leadership training, and led a bike/walk audit of the school property and surrounding streets. Additionally, through a partnership with a school based health center, we assisted in the formation of a lunchtime walking club at a middle school in the Central District of Seattle.

Nutrition: Recipe Modification and Chef Involvement

SPS partnered with the Tom Douglas Restaurant Group (TDG) to develop new menu items for the breakfast and lunch program.

Nutrition: Local Foods

Seattle Public Schools reviewed harvest of the month programs all over the country to determine attributes they wanted to include for the newly enhanced program, called Washington Grown. Washington Grown pulls features from Portland Public Schools and California states harvest of the month program. It highlights produce, grains, legumes and dairy farmed in Washington State.

Nutrition: Breakfast

School breakfast participation in Seattle is historically low. Given the research linking academic success and behavior management with breakfast, SPS has made breakfast a priority. SPS has met with students and families from over 5 schools to identify barriers to the current breakfast program.

Nutrition: Salad Bars

SPS identified 16 schools in need of salad bars. Schools will be outfitted with salad bars and promotion material for staff, parents and children.

Nutrition: Nutrition Services Multi-District Task Force

The Nutrition Services Department spearheaded the formation of the Nutrition Services Task Force to address the needs of the new USDA regulations around the breakfast and lunch programs.

Outcomes

Outcomes include both short-term outcomes and accomplishments related to the project deliverables, and longer term impact, including sustainability. These are summarized for each of the three major elements of the SPS project – quality PE program, SRtS, and Nutrition.

Physical Education: Program Support

In the end, PE support was provided to 21 schools, 4 more schools than originally planned. Staff from each school received 6 training sessions around the Five for Life curriculum and new equipment necessary to make the program successful.

Safe Routes to School: Partnership

The King County Food and Fitness Initiative partnered with SPS, the Delridge Neighborhoods Development Association and the White Center Community Development Association to outline a bike and poetry club for students at Chief Sealth High School and Denny Middle School. The students attending the bike club learned poetry skills, outreach techniques to spark community support, practiced basic grant writing and planned rides for the spring and summer of the 2011-2012 school year. The participants were invited to join the Major Taylor Project cycling team over the summer and to participate in the 200 mile ride from Seattle, WA to Portland, OR.

Nutrition: Recipe Modification and Chef Involvement

Tom Douglas Group (TDG) has developed a better community understanding about how to help SPS by touring the central production kitchen and schools with different socio-economic and ethnic populations and meeting with students to discuss the current meal program and what they would like to see in the future. TDG gained an understanding of the barriers and issues involved in feeding 20,000+ lunches each day.

Chefs from TDG, members of the SPS nutrition services department and the head chef for SPS worked together to develop new food recipes for the meal program. Eight dishes were taste tested by over 1000 students, family and school staff during 6 family nights at schools around the south end of Seattle. Many of the dishes received over 70% approval rating, with only one with below 50% approval rating. Eric Tanka, executive chef for TDG, was interviewed about this project by KPLU on Oct 10th.¹ An unexpected outcome is a commitment by the Tom Douglas Group to continue partnership with the SPS beyond the grant period without a charge.

TDG also helped coordinate the first ever 'School the Chef' event in spring of 2012. Chefs from many of the top restaurants in Seattle lead teams of 4th and 5th graders to compete in a top-chef cooking competition to design a new school meal.

¹ Where's the latest hotspot for a gourmet meal? Seattle schools <http://www.kplu.org/post/wheres-latest-hotspot-gourmet-meal-seattle-schools>

Nutrition: Washington Grown, a harvest of the month program

Washington Grown is in 34 elementary schools and 1 middle school. Monthly marketing events were held to increase exposure to the monthly highlighted foods (e.g., "Cinnamon the cow" visited 4 elementary schools last year during dairy month²).

The program was so successful in Seattle that 5 other districts in King County opted to use Washington Grown in their districts. Washington Grown includes a large 4x6 foot poster in the cafeteria featuring the monthly highlighted item. Classroom teachers also receive a nutrition educator packet on the item.

Nutrition: Breakfast

Given the importance of breakfast to nutrition, SPS sought to understand the barriers to participation within the district and hired TreeSwing, a local non-profit, to lead discussions with families from 6 elementary schools and students from 1 middle school and 1 high school. Each group answered questions on the current program and what they would like changed or improved. Seattle's breakfast participation is around 16% district wide. There were 4 major areas identified to promote the breakfast program: improved communication to parents and staff, better management of the cafeteria environment, more variety at the middle and high school levels, and protein served with every elementary meal. Developing a feedback mechanism for both families and school staff was also recommended.

Marketing and Communication: Over the years, SPS has made positive changes to both the breakfast and lunch program. From discussions, it is clear that very few people know about the changes. The parents asked for more transparency around the meals offered. The next step is identifying how to best educate staff on the quality and service of breakfast. Once teachers realize what is being served and are supportive, SPS believes they will be allies in promoting breakfast with their students.

Parents of the younger students want more supervision in the cafeteria to make the atmosphere less chaotic. They would like teachers and staff to be in the cafeteria to act as role models with eating breakfast. An increase in the variety of entrees and improved service were the top changes requested by the older students.

Finally, SPS currently has no easy method for parent and teacher feedback. By creating a channel for feedback, SPS will have a better understanding of the current concerns of their customer and support base.

Nutrition: Staff training in whole foods cooking

One hundred Seattle cafeteria staff participated in the whole foods training course developed by the Auburn School District (over the period of the grant.) The former SPS Director of Nutrition Services emailed that *"The classes went terrifically well... lots of positive feedback."* Additionally, when surveyed, many of the kitchen staff said it was the "best training" they have ever received and are happy they can incorporate what they learned at home.

Nutrition: Salad Bars

Sixteen salads and accessories were purchased for schools with a pre-packed model in SPS. The salad bars will be launched in October 2012, once proper training has been completed. The

² <http://westseattleblog.com/2011/02/west-seattle-schools-westside-hp-elementary-wsc-preschool>

schools are excited for the arrival of the bar and being able to offer a wider variety of fruits, vegetables and legumes to their student body.

Nutrition: Nutrition Services Task Force

With the recent changes to the regulations of the breakfast and lunch programs, the director of Nutrition Services, teamed up with her peers at neighboring districts to approach the change head on. Directors from 5+ districts met regularly to discuss and interpret the new rules and identify innovative solutions to succeed.

Working as a group, helped the directors address concerns and interpretation issues early, thus reducing the stress of planning for the 2012-13 school year. The group continues to meet on a monthly basis to continue their work and address the changing environments of school cafeterias and the changing needs of students and the school community.

As a group, the task force created a 5-minute long video to share with school staff, parents and community members. The video is available to districts all over the state.³ The task force also created fact sheets for the staff and school community. Each district, including Seattle,⁴ personalized their fact sheet with their own district logo.

Lessons learned

The primary challenges and lessons learned from the Seattle Schools CPPW project, centered around administrative issues in implementing the program, for example:

- The CPPW staff had a steep learning curve to understand the SPS administrative system for ordering and financial management of the grant funds. As a result they have moved the grant management into Nutrition Services and all requests for purchasing or spending grant funds must be approved by the Assistant Child Nutrition Services Director.
- Nutrition Services experienced challenges early in the grant in working through the complex district systems to manage the grant purchasing. The lessons learned from the first order improved the process when ordering the salad bars later in the grant period.
- One of the key challenges faced by the PE program work was tracking and working with the School District fiscal services department to be able to spend the CPPW budget for PE equipment.
- CPPW is a multi-department grant engaging all Departments in executing and coordinating this work which has created challenges at times.

Other large districts interested in implementing similar programs should attempt to address the fiscal and administrative issues early on so that the challenges do not interfere with the progress of the work itself.

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<http://www.seattleschools.org/modules/cms/pages.phtml?sessionId=3c6be4398a8c9b71e37d756cc03b4a25&pageid=275680&>

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<http://www.seattleschools.org/modules/groups/homepagefiles/cms/1583136/File/Departmental%20Content/nutrition/Whats%20happening%20in%20school%20foods-Seattle%208-30.pdf?sessionId=3c6be4398a8c9b71e37d756cc03b4a25> .

King County CPPW HEAL School Nutrition and Physical Education (PE) Objectives Summary

Total HEAL Spending in Schools Sector: \$2,785,000

Total Reach (enrollment of participating schools): 143,930

Spending per Student: \$19.35

Objective 1: By February 2012, nutrition standards that meet the Dietary Guidelines for Americans 2010 will be adopted and implemented by the Seattle, Renton, Highline, Auburn and Tukwila school districts, affecting at least 50% of all King County school-age children, and 85% of school-age children in the focus communities¹ (6 of 7 school districts in the CPPW focus communities, including Seattle, the largest school district in King County).

Description: Six districts (Seattle, Renton, Highline, Auburn, Tukwila and Highline) implemented nutrition standards based on the Dietary Guidelines for Americans 2010 affecting 55% of all school-age children in King County and 98% of school-age children in CPPW focus communities. CPPW supported accomplishing this objective by creating the Nutrition Directors Task Force led by Seattle Public Schools, promoting locally grown produce in the cafeteria with the Harvest of the Month program, developing a Farm to School model program, and promoting student-led healthy eating marketing campaigns in the Renton and Auburn School Districts.

End Status: This objective was completed.

Outcomes:

- Five School Districts in King County implemented the US Department of Agriculture's (USDA) new nutrition standards based on the Dietary Guidelines for Americans (DGA) in their school meal programs.
- University of Washington Center for Public Health Nutrition and a community school health non-profit organization provided nine workshops and one webinar on policy, systems and environmental changes in schools to improve nutrition and physical activity. They also provided continuing support to seven school districts (Auburn, Kent, Highline, Northshore, Renton, Seattle, and Tukwila) to improve specific nutrition and physical education policies that increase access to healthier foods and physical activity in school environments.
- The CPPW School Nutrition Directors Task Force developed marketing materials for schools to use to promote new/changed foods offered in the school cafeterias to bring school meals in line with DGA 2010. The "What's New in School Meals" materials packet included: a generic Letter, talking points, FAQs, and a poster. The CPPW participating schools as well as school district members of the Puget Sound Purchasing Cooperative (membership consists of 100 districts) used these materials.

¹ King County CPPW selected a group of focus areas in South Seattle and South King County based a need index that included the proportions of population with income below 200% of federal poverty level; that were non-white, and that were physically inactive, not consuming 5-a-day, obese, and diabetic. The focus communities had a combined population of 652,000, or 35% of the county total during CPPW.

- CPPW partners developed 'Washington Grown', a harvest of the month program. Five King County school districts used the program and it is also available on-line to all Washington State School Districts.
- Seattle Public Schools Nutrition Services Department partnered with the Tom Douglas Group to develop 8 new recipes for the breakfast and lunch program which over a 1,000 students and family members provided feedback on after a taste testing.
- Farm to School in the Kent School District purchased \$140,000 of produce from eight local farms, which was 28-30% of the total produce budget in 2011-12. The purchases included 35 different kinds of local produce. A new Farm to School website and implementation toolkit was created by the Washington State Department of Agriculture (WSDA) and a Kent high school student intern.
- The Washington Sustainable Food and Farming Network and Washington State Department of Agriculture (WSDA) produced a School's Guide to Purchasing Washington-Grown Food to support schools in implementing the new USDA food procurement regulation.
- Auburn School District and Renton School District developed student-led media campaigns for healthy eating and active living, which reached 28,919 students. In Renton, a newly formed Nutrition Council with student members from three high schools developed a media project called, "Healthy is Happy" with the tag line "Wish you could change for the good?" Digital menu boards were installed in 20 schools to post daily menus and highlight items meeting nutrition standards. Auburn School Districtive Education Club of America (DECA) students developed the "Commit to Fit – TEAM AUBURN" campaign in which 4,000 students tracked their healthy eating and physical activity on-line. DECA students presented the campaign at student assemblies, administrative meetings and to the Auburn School Board.
- , An 8-hour Washington School Nutrition Association certified training about how and why to cook with whole foods, Discover. Cook. Nourish, was developed and implemented by the Auburn School District. Over 500 school food service cafeteria staff completed the training which included PowerPoint presentations, hands on food preparation of breakfast, lunch and snack recipes and a comprehensive notebook with 30 recipes and nutrition background information about the benefits of whole foods compared to processed foods.

Key Contributors to Success: Most of the CPPW school districts were working toward implementing higher quality nutrition standards for several years. The CPPW nutrition and physical activity trainings accelerated progress by providing opportunities for networking and led to collaborative work through the CPPW funded Nutrition Directors Task Force. The Task Force provided a strong support system to help school districts to meet the new USDA nutrition standards.

Impact on Disparities: All of the CPPW school districts serve communities which have the highest health disparities in King County. Most of these school districts have over 50% of their students eligible for free or reduced school meals.

Challenges: The new nutrition standards were released late by USDA, which significantly reduced the time available to make changes and to develop the marketing campaign to promote the new school meals. In addition, one of the major challenges school districts faced in implementing the new nutrition standards involved product availability from vendors. The school nutrition directors worked closely with the vendors to identify products that students would accept and that met the nutrition standards.

Lessons Learned:

- Student involvement in developing media campaigns for healthy eating and active living was a key factor to developing a successful marketing message and increased the sustainability of the campaigns.
- The CPPW trainings provided School Nutrition Directors with information on best practices and resulted in establishment of strong working relationships. These relationships facilitated the efficient and cost-effective implementation of the school meal changes through development and use of similar education materials over multiple districts.
- Working with school districts is sometimes challenging when trying to match grant timelines with school year availability of staff and students. School districts have periods of time during the year that are particularly busy such as testing weeks, beginning and ending of school years, and right before school breaks. These periods should be taken into consideration for strategic planning.
- The public health staff person managing the school district projects had existing relationships with the districts as well as an understanding of the systems in the school districts. These assets were critical for meeting this objective.

Objective 2: By March 2012, physical education (PE) curricula will be adopted and implemented by the Seattle, Auburn and Tukwila school districts which meet Washington State standards in both quality and quantity (requiring that students are active at least 50% of class time and that PE classes are delivered by teachers trained and certified to teach PE).

Description: Seattle Public Schools, Tukwila and Auburn School Districts were funded through CPPW to adopt and implement a high quality, culturally appropriate PE curricula. CPPW provided funding for curricula selection, PE staff training, PE equipment purchases, curricula implementation, and mapping the K-12 curricula to the Washington State Office of Superintendent of Public Instruction K-12 Health and Fitness Learning Standards.

End Status: This objective was completed.

Outcomes:

- The Auburn, Tukwila and Seattle School Districts selected and implemented culturally appropriate, standards-based, high quality physical education curricula and purchased necessary equipment. This impacted 63,000 students.
- Tukwila School District held a successful family event night for English Language Learners (ELL) parents in which PE teachers worked with interpreters to share the new physical education curriculum and explain the importance of having their children stay fit. Over 70 people attended the event. Parents participated in some physical activities that their students were learning in the new PE classes.
- Through CPPW, the Seattle Public Schools initiated an annual Physical Education Community Forum Showcase.

Key Contributors to Success: Auburn, Tukwila and Seattle School Districts all had CPPW project coordinators who were highly experienced in PE. The PEPE staff in these districts were excited about using CPPW funding to improve their programs.

Impact on Disparities: The districts funded to select and implement high quality K-12 PE are located within the cities in the CPPW focus area.

Challenges:

- The Auburn and Tukwila School Districts had not reviewed and or made changes to their PE curricula for about 20 years.
- PE teachers are used to doing what they have done in the past and engaging them in improving PE curricula and implementing curricula changes was initially challenging.
- One of the major challenges was the short time-frame for the grant period. Schools had only 18 months to complete the work.

Lessons Learned:

- Purchasing and tracking equipment purchases was a challenge in all 3 districts.
- It is important to engage PE staff from the beginning of the process of selecting and implementing new PE curricula.
- Staff training on the new PE curricula is an important part of successful implementation.
- New equipment required to implement the new curricula is essential for successful implementation and sustainability.
- Sending PE teachers to a Fitness Conference was a good learning experience for the PE staff, who had never attended the conference previously.
- The sound systems purchased with CPPW funding improved the classroom management significantly since students were able to easily hear teacher's instructions.



Objective 7: By May 2011, 15 focus community schools (elementary, middle and high schools) will implement Safe Routes to School (SRTS) programs and 20 schools in focus communities that have not previously applied for SRTS funding will submit applications to the Washington State Department of Transportation and other funders.

Description: The Bicycle Alliance of Washington (now Washington Bikes) assisted 15 schools in 6 school districts (Auburn, Kent, Renton, Tukwila, Highline and Seattle) with implementing SRTS policies, systems and environmental changes and produced final reports for each school identifying the prioritized infrastructure and improvement projects around schools in coordination with their respective city government.

End Status: This objective was completed.

Outcomes:

- Safe Routes to School program was implemented in fifteen schools in six school districts serving 124,000 students.
- Walking audits and reports, baseline surveys, walking maps, and encouragement (kick-off) events and other activities occurred at participating schools.
- Five school districts sent PE teachers to a two-day Office of the Superintendent of Public Instruction-approved training on bicycle/pedestrian safety for 4th and 5th graders.
- Six out of fifteen SRTS participating schools implemented some form of infrastructure changes, including changing crosswalk locations, building walkways, extending sidewalks, and trimming vegetation to make sidewalks accessible.
- For capacity building, The Bicycle Alliance invited guest speakers to monthly meetings to train district representatives on safe routes to school implementation, including working with law enforcement, pedestrian and bicycle engineering, increasing access to bikes and helmets for low-income students, and outreach to underserved communities. The Bicycle Alliance hosted two successful workshops for district and city staff- the first was on Safe Routes to School Policies and the second was on grant writing for Safe Routes to School Grants and funding sources for bikes and helmets for low-income youth. Both speakers were from the Safe Routes to School National Partnership.
- Schools made sustainability plans, including:
 - Continued meetings were planned to ensure sustainability of SRTS work between the Tukwila School District and the City of Tukwila. Meetings will include staff from human services, public works, law enforcement, Community Schools Collaboration (a non-profit), School District Student Services, and the Bicycle Alliance of Washington.
 - Two schools are planning to repeat their walk-to-school days.
 - The Highline School District Transportation Office will begin meeting regularly with city staff in Burien, SeaTac, and Des Moines to discuss Safe Routes to School planning. The City of SeaTac has built on the connections developed through the grant and holds regular community engagement activities at low-income schools in partnership with the district. One elementary school will be continuing to promote walking and biking to school as part of a grant they obtained through ING (a financial services company) and the National Association for Sport and Physical Education.
 - One of the Auburn School District schools purchased a set of bikes for to allow it to repeat the Bike/Pedestrian training program for its students.

Key Contributors to Success: The Bicycle Alliance of Washington (a sub-contractor) hired a full-time staff to coordinate the SRTS project with the six school districts. The staff was an experienced planner with exceptional organizational and interpersonal skills which contributed significantly to the success of the CPPW SRTS project. Additionally, readiness for the SRTS program by the school districts was evident based on their interest and responsiveness to participating in the walking audits and school SRTS kick-off events. These events had participation from school administrators, parents, students, law enforcement, city planners, city transportation and school board members from the focus communities. The overall King County CPPW media campaign, "Let's Do This," included a [Safe Routes to School](#) video to promote the importance of informing parents and their children about why walking and biking to school is recommended.

Impact on Disparities: SRTS work occurred in CPPW focus communities, described previously in this summary

Challenges: There were many scheduling challenges working with six school districts. Some of the scheduling challenges included: getting schedules for all of the walking audits and teacher trainings; coordinating moving three trailers (30 bicycles in each trailer) to fifteen different schools during the eighteen month grant period; and getting all of the PE teachers signed up for the two-day bike/pedestrian training classes. Also, storage of the trailers with the bicycles was difficult since the trailers were broken into several times and required repair work. Another challenge was staff turnover. For example, three different project coordinators were hired by one school district's sub-contractor who was a small non-profit community partner. Finally, each district had different needs and barriers to implementing successful SRTS programs, requiring tailored technical assistance for each one.

Lessons Learned: It was challenging to work with six school districts that have different administrative requirements. In the future it would be easier and more efficient to focus on several districts with schools in closer proximity for scheduling walking audits, events and moving the bicycles and equipment to different locations.





PLANET HEALTH

Blueprints Program Rating: Promising

A two-year school-based health behavior intervention designed to reduce obesity among students in grades 6-8 by increasing energy expenditure while promoting key dietary behaviors. The program has only shown impacts on obesity outcomes for girls.

FACT SHEET

PROGRAM OUTCOMES

Obesity

PROGRAM TYPE

School - Individual Strategies

PROGRAM SETTING

School

CONTINUUM OF INTERVENTION

Universal Prevention (Entire Population)

AGE

Early Adolescence (12-14) - Middle School

GENDER

Male and Female

RACE/ETHNICITY

All Race/Ethnicity

ENDORSEMENTS

Blueprints: Promising

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PROGRAM DEVELOPER/OWNER

Steven Gortmaker
Harvard School of Public Health

BRIEF DESCRIPTION OF THE PROGRAM

The Planet Health program is a two-year intervention designed to reduce obesity by increasing energy expenditure while promoting key dietary behaviors. The curriculum introduces and reinforces five simple health messages or goals: 1) Be physically active every day; 2) Limit your screen time to no more than two hours per day; 3) Eat five or more servings of fruits and vegetables (combined) daily; 4) Eat more whole grains and less added sugar; and 5) Eat foods low in saturated fat and containing no trans fat. The Planet Health curriculum includes teacher training workshops, classroom lessons, PE materials and wellness sessions. Classroom components are designed to fit into 45-minute periods and are designed to be inter-disciplinary. Each program theme is addressed in one lesson per subject (language arts, math, science and social studies) for a total of 16 core lessons each in year 1 and year 2, for a total of 32 lessons.

See: Full Description

OUTCOMES

Gortmaker et al. (1999)

- The Planet Health intervention significantly reduced obesity among girls in the intervention schools, when compared to the control conditions.
- The Planet Health intervention did not significantly reduce obesity among boys.
- Planet Health girls reduced dietary intake, increased fruit and vegetable consumption and viewed less television than control girls.

Austin et al. (2006)

- Girls in Planet Health intervention schools were less than half as likely to report purging or using diet pills at post-test compared with girls in control schools.

RACE/ETHNICITY/GENDER DETAILS

The program influenced obesity outcomes for girls but not for boys. There is some evidence that the program works better for African American girls than white or Hispanic girls.

RISK AND PROTECTIVE FACTORS

Protective Factors

Individual: Exercise

TRAINING AND TECHNICAL ASSISTANCE

Professional Development for Teachers

Teacher training focuses on understanding how to effectively implement Planet Health into the middle school classroom presentations on the U.S. trends in nutrition, physical activity, and inactivity, the importance of including schools in efforts, how to use the Planet Health curriculum, and the core nutrition and physical activity messages. There are also discussions about students' nutrition and physical activity and how to frame conversations with youth about the material in the Planet Health curriculum through the following activities:

Planet Health Introductory Workshop Training: The Harvard School of Public Health Prevention Research Center was provided in the research trial on a case-by-case basis. Separate trainings are available for classroom teachers and physical education teachers (5 hours of training). The total cost of a day-long training that includes sessions for classroom teachers is \$400 (plus travel). Staff from up to five middle schools may be included in one training day.

Self-guided training: PowerPoint training slides are available free of charge on the Harvard School of Public Health website <https://www.hsph.harvard.edu/prc/projects/planet/> for programs who choose to conduct their own local training. Please note that self-guided training is not certified by Blueprints and was not used in the evaluated studies.

BRIEF EVALUATION METHODOLOGY

Evaluation of the Planet Health intervention involved a randomized, controlled trial with 5 intervention and 5 control schools. 1,295 students from public schools in four urban Boston (MA) communities. Planet Health sessions were delivered to classroom teachers. Lessons focused on decreasing television viewing and consumption of high-fat foods, while increasing physical activity. Data were collected over two years. Baseline data was collected on a cohort of students at the fall 1995, with post-test data collected in spring 1997 (grades 7 and 8).

REFERENCES

Austin, S., Field, A., Wiecha, J., Peterson, K., & Gortmaker, S. (2005). The impact of a school-based obesity prevention control behaviors in early adolescent girls. *Archives of Pediatric Adolescent Medicine*, 159, 225-230.

Gortmaker, S., Peterson, K., Wiecha, J., Sobol, A., Dixit, S., Fox, M., & Laird, N. (1999). Reducing obesity via a school intervention among youth. *Archives of Pediatric Adolescent Medicine*, 153, 409-418.

Blueprints for Healthy Youth Development
In partnership with the Anne E. Casey Foundation

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PLANET HEALTH

Blueprints Program Rating: Promising

A two-year school-based health behavior intervention designed to reduce obesity among students in grades 6-8 by increasing energy expenditure while promoting key dietary behavior. The program has only shown impacts on obesity outcomes for girls.

PROGRAM COSTS

START-UP COSTS

Initial Training and Technical Assistance

PowerPoint training slides are available free of charge on the Harvard School of Public Health Prevention Research Center website: <https://www.hsph.harvard.edu/prc/projects/planet/>. The Harvard School of Public Health Prevention Research Center can coordinate on-site training as was provided in the research trials on a case-by-case basis, but we do not currently have a funded, self-sustaining model to train teachers. Trainers are paid \$50/hour for a total cost of \$400 per day (plus travel). Trainers can train staff from up to five schools in one training day.

Curriculum and Materials

The Planet Health Book and CD cost \$82.00, plus shipping, for each teacher.

Licensing

None.

Other Start-Up Costs

Other optional costs may include stipends for teachers (e.g., \$25/hour; classroom teachers attend 3 hours of training, physical education teachers attend 5 hours of training), food (\$10/participant for lunch), and fitness funds (\$500/school) to help buy materials and equipment to supplement the curriculum.

INTERVENTION IMPLEMENTATION COSTS

Ongoing Curriculum and Materials

Ongoing costs are limited to a small amount of photocopying.

Staffing

The program is implemented by classroom and physical education teachers during the regular school day.

Other Implementation Costs

None.

IMPLEMENTATION SUPPORT AND FIDELITY MONITORING COSTS

Ongoing Training and Technical Assistance

None.

Fidelity Monitoring and Evaluation

Planet Health includes planning sheets for schools as well as monthly and weekly planners. These can be used to assess fidelity by tracking who teaches each lesson and when the lessons are taught.

Ongoing License Fees

None.

OTHER COST CONSIDERATIONS

None.

YEAR ONE COST EXAMPLE

Below is an example of Year One implementation of Planet Health in a middle school with 20 teachers implementing the program.

On-site training by the developer

\$400

Developer travel

\$1,500

20 sets of Planet Health Books CDs (excludes shipping) @ \$62 each

\$1,240

Fitness funds

\$500

Total Year One Cost

\$3,840

If each teacher implemented the program with 20 students, the cost per student in Year One would be \$0.10

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PLANET HEALTH

Blueprints Program Rating: Promising

A two-year school-based health behavior intervention designed to reduce obesity among students in grades 6-8 by increasing energy expenditure while promoting key dietary behaviors. The program has only shown impacts on obesity outcomes for girls.

DETAILED EVALUATION ABSTRACT

PROGRAM DEVELOPER/OWNER

Sievan Gordon
Planet Health
Harvard School of Public Health
Prevention Research Center on Nutrition and Physical Activity
677 Huntington Ave. 7th Floor
Boston, MA 02115
www.hsph.harvard.edu/prc/projects/planet

PROGRAM OUTCOMES

Obesity

PROGRAM SPECIFICS

Program Type

School - Individual Strategies

Program Setting

School

Continuum of Intervention

Universal Prevention (Entire Population)

PROGRAM GOALS

A two-year school-based health behavior intervention designed to reduce obesity among students in grades 6-8 by increasing energy expenditure while promoting key dietary behaviors. The program has only shown impacts on obesity outcomes for girls.

TARGET POPULATION

Age

Early Adolescence (12-14) - Middle School

Gender

Male and Female

Gender Specific Findings

Female

Race/Ethnicity

All Race/Ethnicity

Race/Ethnicity Specific Findings

African American

Race/Ethnicity/Gender Details

The program influenced obesity outcomes for girls but not for boys. There is some evidence that the program works better for African American girls than white or Hispanic girls.

OTHER RISK AND PROTECTIVE FACTORS

Moderate and vigorous physical activity, television viewing, fruit and vegetable intake.

RISK/PROTECTIVE FACTOR DOMAIN

Individual

RISK AND PROTECTIVE FACTORS

Protective Factors

Individual: Exercise

BRIEF DESCRIPTION OF THE PROGRAM

The Planet Health program is a two-year intervention designed to reduce obesity by increasing energy expenditure while promoting key dietary behaviors. The curriculum introduces and reinforces five simple health messages or goals: 1) Be physically active every day; 2) Limit your screen time to no more than two hours per day; 3) Eat five or more servings of fruits and vegetables (combined) daily; 4) Eat more whole grains and less added sugar; and 5)

Eat foods low in saturated fat and containing no trans fat. The Planet Health curriculum includes teacher training workshops, classroom lessons, PE materials and wellness sessions. Classroom components are designed to fit into 45-minute periods and are designed to be inter-disciplinary. Each program theme is addressed in one lesson per subject (language arts, math, science and social studies) for a total of 16 core lessons each in year 1 and year 2, for a total of 32 lessons.

DESCRIPTION OF PROGRAM

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The Planet Health curriculum includes teacher training workshops, classroom lessons, PE materials and wellness sessions. Classroom components are designed to fit into 45-minute periods and are designed to be inter-disciplinary, with program themes taught in language arts, math, science and social studies. Each theme is taught in one lesson per subject, for a total of 16 core lessons each per year (32 total lessons over two years). Lessons consist of behavioral and learning objectives, homework activities, student resources and handouts. In addition to the classroom components, there is a 2-week awareness campaign designed to reduce television viewing.

Classroom teachers receive 3 hours of in-person training, while physical education teachers receive 5 hours of training. The training consists of an interactive PowerPoint presentation that models the methods of the program, engages the learners' current knowledge, promotes reflection and discussion, and encourages learners to compare their current knowledge and behaviors with those suggested by the book and to create plans and goals for the future.

The Planet Health intervention focuses on improving the activity and dietary behaviors of all students, therefore reducing the stigma associated with singling out youth who are already obese. This population-based approach aims to both reduce obesity among those who are already obese and prevent new cases.

THEORETICAL RATIONALE

The Planet Health intervention is based on concepts from behavioral-choice and social-cognitive theories of individual change. Behavioral-choice components of the intervention encourage participants to "make space" for more activity in their lives by reducing television time. The Planet Health Intervention uses social-cognitive theory to illustrate the importance of social and environmental factors that influence both psychosocial and behavioral risk factors for obesity.

THEORETICAL ORIENTATION

Behavioral

BRIEF EVALUATION METHODOLOGY

Evaluation of the Planet Health intervention involved a randomized, controlled trial with 5 intervention and 5 control schools. The sample included 1,295 students from public schools in four urban Boston (MA) communities. Planet Health sessions were delivered within existing curricula using classroom teachers. Lessons focused on decreasing television viewing and consumption of high-fat foods, while increasing fruit/vegetable intake and physical activity. Data were collected over two years: baseline data was collected on a cohort of students at the beginning of grades 6 and 7 in fall 1995, with post-test data collected in spring 1997 (grades 7 and 8).

OUTCOMES (BRIEF, OVER ALL STUDIES)

Gortmaker et al. (1999)

Planet Health intervention had some success in reducing obesity among girls, but no significant differences were observed among boys. Reductions were found in self-reported television viewing among both boys and girls, and girls in the intervention schools experienced increases in fruit and vegetable consumption and a reduction in overall dietary intake.

Austin et al. (2006)

The Planet Health intervention resulted in a reduced risk of using self-induced vomiting/laxatives or diet pills to control weight in the past 30 days, among a subgroup of adolescent girls.

OUTCOMES

Gortmaker et al. (1999)

- The Planet Health intervention significantly reduced obesity among girls in the intervention schools, when compared to the control conditions.
- The Planet Health intervention did not significantly reduce obesity among boys.
- Planet Health girls reduced dietary intake, increased fruit and vegetable consumption and viewed less television than control girls.

Austin et al. (2006)

- Girls in Planet Health intervention schools were less than half as likely to report purging or using diet pills at post-test compared with girls in control schools.

MEDIATING EFFECTS

Several secondary outcomes that were thought to be correlated with obesity were included in the analysis. Among girls, only television viewing was found to significantly predict obesity (OR = 0.85, $p = .02$) and mediate the intervention effect.

EFFECT SIZE**Gortmaker et al. (1999)**

Effect sizes were small to medium for the two significant outcomes. Adjusted odds ratios were 4.7 for obesity prevention and 2.16 for obesity remission.

Austin et al. (2006)

Effect sizes were generally medium for the full sample of 400 girls, and large for girls who reported being non-dieters at baseline. Additionally, researchers estimate that 59% of disordered weight-control behavior among girls in control schools might have been prevented had they received the Planet Health intervention.

GENERALIZABILITY

Research evidence shows that the program only works for girls. There were no results for boys. Specifically, the program works better for African American girls than for White or Hispanic girls.

LIMITATIONS**Gortmaker et al. (1999); Austin et al. (2006)**

- The evaluation suffered from low participation rates. Only 85% of eligible students participated.
- Dietary intake and physical activity measures were based on self-report, and potentially biased.
- Some differences by race showed between the conditions at baseline.

NOTES

In 2003, CDC researchers conducted an independent economic analysis of Planet Health based on estimated program costs of \$14 per student per year (this cost estimate included teachers being paid for their training time). For every dollar spent on middle school Planet Health programs, researchers projected a savings of \$1.20 in medical costs and lost wages by the time students reach middle age (40 to 65 years of age) (Wang et al. 2003).

ENDORSEMENTS**Blueprints:** Promising**REFERENCES**

Austin, S., Field, A., Wiecha, J., Peterson, K., & Gortmaker, S. (2005). The impact of a school-based obesity prevention trial on disordered weight-control behaviors in early adolescent girls. *Archives of Pediatric Adolescent Medicine*, 159, 225-230.

Gortmaker, S., Peterson, K., Wiecha, J., Sobol, A., Dixit, S., Fox, M., & Laird, N. (1999). Reducing obesity via a school-based interdisciplinary intervention among youth. *Archives of Pediatric Adolescent Medicine*, 153, 409-416.

PROGRAM INFORMATION CONTACT

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STUDY 1

Gortmaker, S., Peterson, K., Wiecha, J., Sobol, A., Dixit, S., Fox, M. and Laird, N. (1999). Reducing obesity via a school-based interdisciplinary intervention among youth. *Archives of Pediatric Adolescent Medicine*, 153, 409-416.

Evaluation Methodology

Design: Evaluation of the Planet Health intervention involved a randomized, controlled trial with 5 intervention and 5 control schools. Data were collected over two years: baseline data were collected on a cohort of students at the beginning of grades 6 and 7 in fall 1995, with post-test data collected in spring 1997 (grades 7 and 8). The sample included 1,295 students from public schools in four urban Boston (MA) communities. Post-test data were collected in spring 1997 on 83% of the baseline sample. Planet Health sessions were delivered within existing curricula using classroom teachers. Lessons focused on decreasing television viewing and consumption of high-fat foods, while increasing fruit/vegetable intake and physical activity.

Schools were the unit of randomization. Recruitment of schools was based on willingness to implement the classroom and physical education curriculum. Control schools received their usual health curricula and PE classes.

Recruitment: Baseline data were collected in fall 1995 on 1,560 students in both intervention and control schools. Overall participation rate was 84.5% in control schools and 84.8% in intervention schools. A total of five schools required active parental consent. Consent rates were 58% among schools with active consent and 89% among schools with passive consent. The analysis was based on 1,295 students who completed both baseline and post-test data.

Attrition: Post-test data were collected in spring 1997 on 83% of the baseline sample (n = 1,295). Students were excluded who transferred schools, were in special education classes or were in the wrong grade. It should be noted that students who completed the Spanish-language version of the questionnaire (5% of eligible students) were excluded from the analysis.

Sample: The sample used for analysis consisted of 1,285 students who completed both baseline and post-test assessments. Of these students, 48% were female and 52% male. Average student age was approximately 12 years old. Racial/ethnic breakdown was as follows: 66% white, 13% African American, 13% Hispanic, 6% Asian/Pacific Islander, 2% American Indian and 7% other.

Measures: The primary outcome measures were obesity prevalence, incidence and obesity remission (a reduction in obesity among those already obese). Obesity was defined using a composite indicator based on a body-mass index and a triceps skinfold value greater than (or equal to) age- and sex-specific 85th percentile. Researchers measured change in obesity from baseline (fall 1995) to post-test (spring 1997).

Secondary outcomes: Measures of television viewing, physical activity and dietary intake, as well as other sociodemographic and behavioral variables were obtained from a Food and Activity Survey completed by youth. The survey included an 11-item 'Television and Video' measure (estimate of total television viewing), a 16-item 'Youth Activity Questionnaire' (an estimate of time spent in moderate and vigorous physical activity) and the 'Youth Food Frequency Questionnaire' (assessment of intake of fruits, vegetables and fat).

Analysis: Because schools were randomized, rather than students, a generalized estimated equation method was used to adjust for the individual-level covariates under cluster randomization, with schools nested within experimental conditions. Separate regression estimates were estimated for boys and girls. Analyses were conducted using an intent-to-treat protocol, with participants analyzed in their original randomized condition irrespective of the number of Planet Health sessions attended. To control for missing behavioral data, indicator variables with mean substitution were used. Researchers claim the mean substitution variables did not appear to affect the results of the analysis, but the technique is generally not appropriate.

Outcomes

The prevalence of obesity among girls in the Planet Health intervention schools was significantly reduced, when compared to girls in the control condition. There were no significant differences in obesity measures among boys.

Implementation fidelity: Implementation analysis revealed 87% of classroom teachers and 100% of PE teachers completed the training sessions. Classroom teachers reported they completed an average of 3.5 lessons per year (out of a minimum of 4 per subject). PE teachers reported they completed an average of 8.2 micro-units per year (out of 30).

Baseline equivalence: Prior to randomization, schools were matched and balanced for factors that could affect study outcomes. These included school size, ethnic composition, school food services and physical education curricula. There was a slight difference in median household income between the zip codes associated with intervention and control schools, with intervention schools averaging \$36,020 and control schools averaging \$34,200.

Baseline data stratified by sex revealed no significant differences among the 1,560 intervention and control students in mean values of age, body-mass index, triceps skinfold or obesity. There were some differences in ethnic composition: higher percentages of African American girls (17% vs 10%) and Hispanic boys (18% vs 12%) were in control schools.

Differential attrition: Post-test data were collected in spring 1997 on 83% of the baseline sample. For girls, data were collected for 82% of control and 81% of intervention students. For boys, data were collected for 86% of control and 83% of intervention students. Among girls, there were no significant baseline differences in rates of follow-up at baseline. For boys who were obese, a lower rate of follow-up was observed in the intervention condition (87% in the intervention vs 94% in the control condition).

Examining completers only, the intervention and control group had similar baseline sociodemographic, anthropometric, diet and physical activity data. Among girls, there was a difference in the prevalence of African American students (18% control vs 10% intervention), which is about the same distribution as at baseline.

Posttest

Obesity: There were significant results in 2 of 3 obesity measures for girls. When compared to girls in the control condition, girls in the Planet Health schools had significantly reduced obesity prevalence and significantly greater obesity remission. None of the three obesity outcomes for boys were significant.

There was some evidence that the program worked better for African-American girls than white or Hispanic girls.

Secondary outcomes: Among girls, 3 of 5 secondary outcome measures achieved significance. Girls in the intervention schools reported reduced dietary intake, increased fruit and vegetable consumption and less television viewing, when compared to girls in the control condition. Among boys, 1 of 5 secondary outcome measures achieved significance. Boys in the intervention schools reported less television viewing when compared to boys in the control condition.

STUDY 2

Austin, S., Field, A., Wiecha, J., Peterson, K. and Gortmaker, S. (2005). The impact of a school-based obesity prevention trial on disordered weight-control behaviors in early adolescent girls. *Archives of Pediatric Adolescent Medicine*, 159, 225-230.

This study examined the effects of Planet Health on the use of disordered weight control strategies such as vomiting, laxatives and diet pills by middle school girls. The study used data from the sample described in Gortmaker et al. (1999).

Evaluation Methodology

Design: This evaluation assessed the impact of the Planet Health intervention on use of self-induced vomiting and laxative use (purging) and diet pills to control weight in adolescent girls. The study used 480 girls in the intervention and control schools who reported no use of diet pills or purging at baseline. It excluded 21 girls who reported those activities at baseline. It then examined the effects of the intervention on the risk of reporting a new case of purging or diet pill use to control weight at post-test (21 months later).

Sample: The sample included a subgroup of 480 girls, age 10-14 (mean = 11.5 years). This subgroup was taken from a larger sample described in Gormaker et al. (1999).

Measures: Survey items on dieting, vomiting or taking laxatives (purging), and taking diet pills in the last 30 days to control weight were combined to create a single disordered weight-control variable for analysis. The composite variable was composed of the following survey questions:

- During the past 30 days, did you diet to lose weight or to keep from gaining weight?
- During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?
- During the past 30 days, did you take diet pills to lose weight or to keep from gaining weight?

Analysis: Data from 480 girls were used to examine the effects of the Planet Health intervention on the risk of reporting a new case of purging or diet pill use to control weight at post-test (21 months later). A generalized estimating equation (GEE) was used to account for design effects due to clustered sampling by school. The authors estimated the odds of reporting disordered weight-control behavior in the past 30 days at post-test among girls who did not report use of purging or diet pills at baseline. Baseline dieting, age, obesity and ethnicity were used as covariates in multivariate models. Girls who reported purging or using diet pills at baseline were excluded from the analysis.

Outcomes

Baseline equivalence: Compared with girls in the intervention schools, a greater proportion of girls in the control schools were African American (9.1% vs 15.9%) at baseline. Therefore, ethnicity was included in all multivariate models. Control and intervention participants did not differ significantly in the distribution of age or prevalence of overweight or dieting in the past month.

Differential attrition: The cases used were subject to the same differential attrition as in Gormaker et al. (1999).

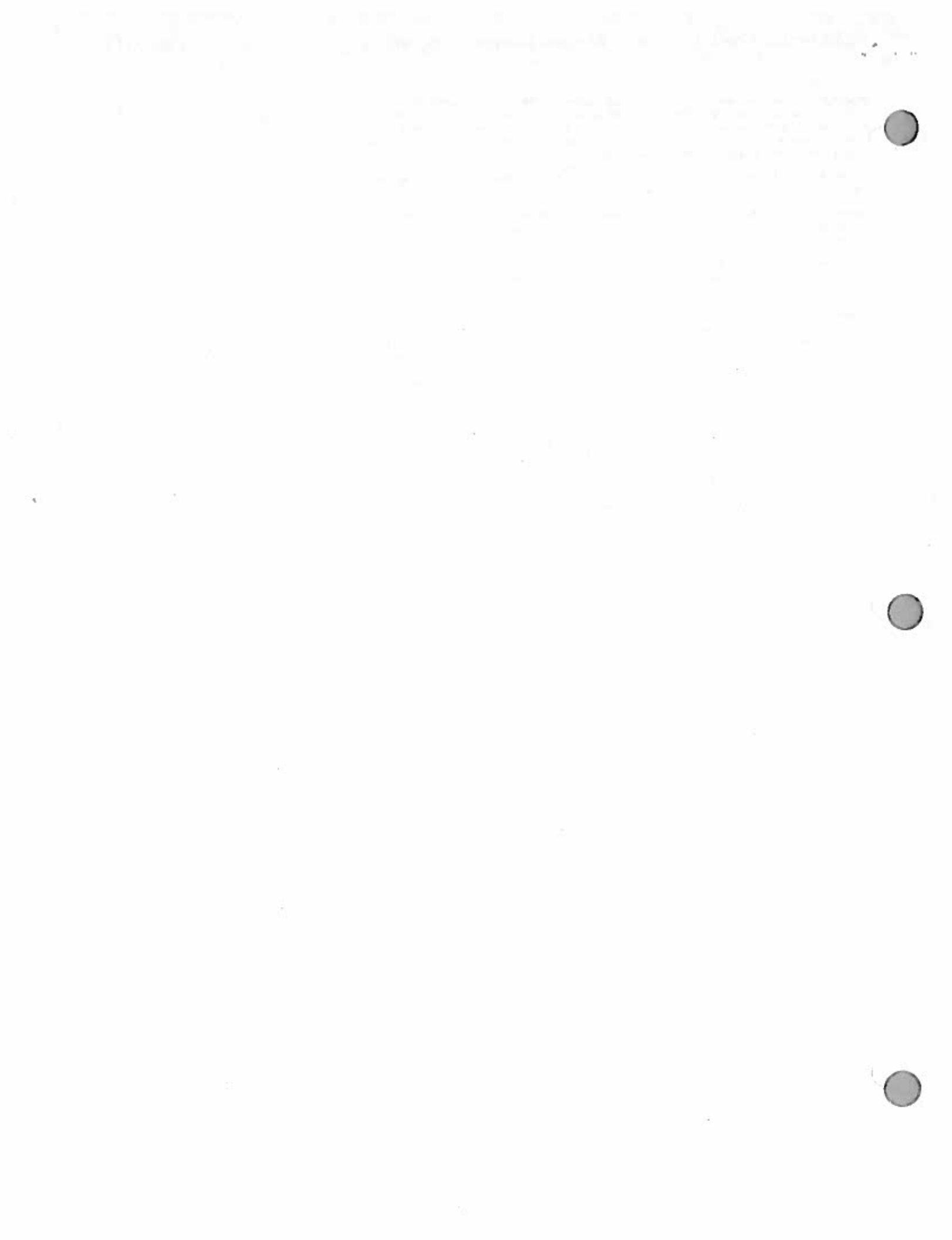
Posttest: Girls in intervention schools were less than half as likely to report purging or using diet pills at post-test compared to girls in control schools (OR = 0.41).

Results appeared particularly strong among those who were non-dieters at baseline: among baseline non-dieters, girls in intervention schools were 12 times less likely than girls in control schools to report the use of purging or diet pills to control their weight at post-test.

Long-term: No follow-up data were gathered.

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A Compendium of Proven Community-Based Prevention Programs

OCTOBER 2013

The Trust for America's Health (TFAH) and New York Academy of Medicine (NYAM) released *A Compendium of Proven Community-Based Prevention Programs*, which highlights 79 evidence-based disease and injury prevention programs that have saved lives and improved health.

"Over the past 50 years, healthcare costs have risen drastically—accounting for 18 percent of the Gross Domestic Product," said Jo Ivey Boufford, MD, president of The New York Academy of Medicine. "Some of the costliest chronic conditions have been the drivers of these costs—yet a significant number of these illnesses and injuries could have been prevented. Quite simply, disease and injury prevention programs are the key to reversing spiraling costs and safeguarding the future health and wealth of the nation."

The Compendium notes that, since 2008, the number of effective community-based programs and interventions has grown exponentially and the report identifies specific programs—that can be taken to scale—which prevent disease and create a healthier population.

"The Compendium highlights the growing number and range of successful, evidence-based approaches to prevention," said Jeffrey Levi, PhD, executive director of TFAH. "These efforts demonstrate that making healthy choices easier for people in their daily lives pays off in terms of improving health and lowering health care costs. This report documents how these programs can and do work—but we need to invest more if we're going to bring them to scale and improve the nation's health."

The Compendium is a follow-up to a 2008 report released by TFAH and NYAM, which followed a 2008 TFAH study that found that an investment of \$10 per person per year in proven evidenced-based community prevention programs that increase physical activity, improve nutrition and prevent smoking and other tobacco use could save the country more than \$16 billion annually within five years—a return of \$5.60 for every \$1.

The report was supported by grants from The Kresge Foundation and the Robert Wood Johnson Foundation.

In conjunction with releasing the Compendium, TFAH also published several stories in the story bank of *Prevention and Public Health Stories* in the states, which highlight what is working in communities to make the healthy choice the easy choice: <http://healthyamericans.org/health-issues/prevention-page>.

The Compendium includes examples of programs that increase physical activity, reduce asthma, sexually transmitted infections and tobacco and alcohol use, and prevent violence and injury including:

Physical Activity

- The Partnership for an Active Community Environment (PACE) steering committee in New Orleans, Louisiana installed a six-block walking path and school playground in a low-income Black neighborhood. The proportion of residents who were active increased significantly in the neighborhood with the path and playground, where 41 percent of those engaging in physical activity were moderately or vigorously active, compared to 24 to 38 percent of residents in similar neighborhoods without the path. The report notes that PACE is an effective intervention that demonstrates how changes to the built environment may increase neighborhood physical activity.
- North Carolina's State Health Plan for Teachers and State Employees made the Eat Smart, Move More, Weight Less (ESMMWL) available to their members to better manage weight and reduce associated health care costs. The percentage of participants with a BMI less than 30 kg/m² increased from 40 percent to 45 percent and those with a normal blood pressure increased from 23 percent to 32.5 percent.
- Shape Up Somerville, a comprehensive effort to prevent obesity in high-risk first through third grade students in Somerville, Massachusetts, included improved nutrition in schools, a school health curriculum, an after-school curriculum, parent and community outreach, collaboration with community restaurants, school nurse education, and a safe routes to school program. After one year, on average the program reduced one pound of weight gain over eight months for an 8-year-old child. On a population level, this reduction in weight gain would translate into large numbers of children moving out of the overweight category and reducing their risk for chronic disease.
- The Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) program provides low-income uninsured women aged 40 to 64 with chronic disease risk factor screenings, lifestyle interventions and referral services. Over the course of a year, WISEWOMAN participants improved their 10-year risk of coronary heart disease by 8.7 percent, and there were significant reductions in the percent of participants who smoked and had high blood pressure and high cholesterol.

Asthma

- School bus emissions collect within passenger cabins, pollute the environment and contribute disproportionately to air quality. The Washington State Clean School Bus Program found that school

bus retrofits could result in reductions of bronchitis, asthma and pneumonia, with conservative benefit-cost ratios between 7:1 and 18:1.

- Urban, low-income patients with asthma from four zip codes were identified through logs of Emergency Department (ED) visits or hospitalizations, and offered enhanced care including nurse case management and home visits. The program provided services to 283 children with 39.6 percent Black, 52.3 percent Latino, 72.7 percent using Medicaid, and 70.8 percent with a household income of less than \$25,000. Twelve-month data show a significant decrease in any asthma ED visits and hospitalizations, and any days of limitation of physical activity, patient missed school, and parent missed work. There was a significant reduction in hospital costs compared with the comparison community, and a return on investment of \$1.46.

Violence and Injury Prevention

- The federal Safe Routes to School (SRTS) program allocated funds for state departments of transportation to build sidewalks, bicycle lanes, and safe crossings, improve signage, and make other improvements that allow children to travel more safely to school. In New York City, from 2001-2010, annual pedestrian injury rates per 10,000 population were calculated for different age groups and for census tracts with and without SRTS interventions during school-travel hours. The annual rate of school-aged pedestrian injury during school-travel hours decreased 44 percent in census tracts with SRTS interventions.
- Tennessee implemented an extensive statewide sobriety checkpoint program (Checkpoint Tennessee). The volume of checkpoints increased from about 15 in the preceding year to nearly 900 in the program year. The checkpoint activity was publicized extensively. The program resulted in a 20.4 percent reduction in alcohol-related crashes extending at least 21 months after conclusion of the formal program, preventing nine fatal alcohol-related crashes per month.

Sexually Transmitted Infections and AIDS

- A social marketing campaign conducted in Louisiana made over 33 million condoms freely available in over 1,000 public and commercial sites. Surveys among 275,000 Blacks showed that condom use increased by 30 percent and the program was estimated to prevent 170 HIV infections and save 1,909 quality-adjusted life years.

Tobacco Use

- A cost-benefit analysis approach was used to estimate the return on investment for the tobacco cessation program implemented by the state of Massachusetts. Administrative data indicated that program costs were about \$183 per program participant (in 2010 dollars). The study also estimated inpatient savings per participant of \$571, meaning every \$1 in program costs was associated with \$3.12 in medical savings, for a \$2.12 return on investment to the Medicaid program for every dollar spent.

Alcohol Use

- A study examined the effects of changes to Washington State's ignition interlock laws. In June 2004, the interlock order requirement extended to first-time offenders with blood alcohol concentrations (BACs) below 0.15 percent. Mandating interlock orders for all first DUI convictions was associated with reductions in recidivism, even with low interlock use rates, and reductions in crashes. Recidivism among first simple DUI offenders declined by an estimated 12 percent. Among all first-time offenders, it decreased by an estimated 11 percent. The 2004 law change was associated with an 8.3 percent reduction in single-vehicle late-night crash risk.

The report includes an extensive literature review, conducted by NYAM, of peer reviewed studies that evaluated the effectiveness of community-based prevention programs designed to reduce tobacco use, injuries, asthma, alcohol abuse and sexually-transmitted infections, increase physical activity and improve eating habits.

About NYAM: The New York Academy of Medicine has been advancing the health of people in cities since 1847. An independent organization, NYAM addresses the health challenges facing the world's urban populations through interdisciplinary approaches to innovative research, education, community engagement and policy leadership. Drawing on the expertise of diverse partners worldwide and more than 2,000 elected Fellows from across the professions, our current priorities are to create environments in cities that support healthy aging; to strengthen systems that prevent disease and promote the public's health; and to implement interventions that eliminate health disparities.